


Navigating Time and Collaboration through the Janus Framework and Quintuple Helix in Marine Citizen Science.

 **BIOMARATÓ**
MINKA

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embimos

 Institut
de Ciències
del Mar



What is MINKA?



1
Register your observations
Get your own environmental
measurements or take georeferenced
photos of marine and terrestrial
organisms.

SOON YOU CAN

Register your observations to
face the sustainable
development goals

Register and share georeferenced data of
environmental quality, social justice, etc.

Contribute to research on the sustainable development goals

The observations will be validated by experts and will reach the "Research grade"
in citizen science. These observations will be uploaded to global repositories for
will be used in investigation studies.



2
Share with the community
MINKA

Share your observations in a project, either in
your own profile or in a Project of the MINKA
community. You can invite others to join your
project.



3
Speak about your
views

Speak about your views, help the
MINKA community and share your
hobbies and interests.

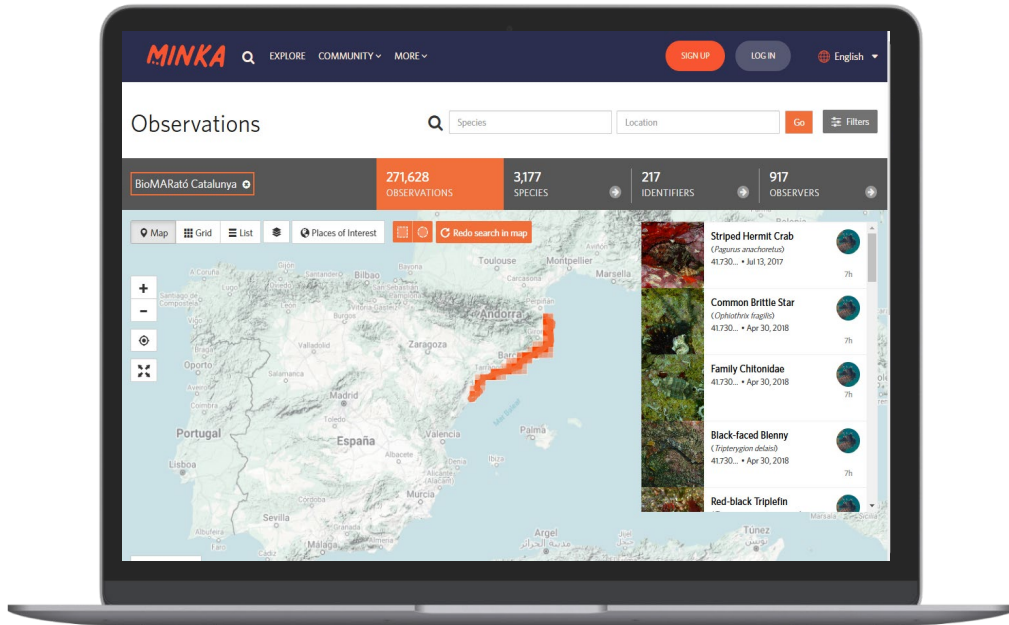
MINKA

SUSTAINABLE
DEVELOPMENT
GOALS

MINKA is a participatory
Citizen Observatory
focussed on observations
related to the Sustainable
Development Goals (SDG)
of UNESCO. Currently,
MINKA reports biodiversity
observations contributing
to the SDG goals Life below
water and Life on Land.



Empowering communities to engage with biodiversity through technology



- Launched in 2021, in 2024 it has build the **largest Mediterranean biodiversity photograph database** (Catalonia).
- **900+ contributors** documenting coastal ecosystems.
- **270,000+ observations** of coastal organisms.
- **90% of observations with Research Grade:** observations with geolocated photographs of local organisms and identification validated

Janus engagement framework



From minutes to days

**CITIZENS/ NGOs
/ SMEs**

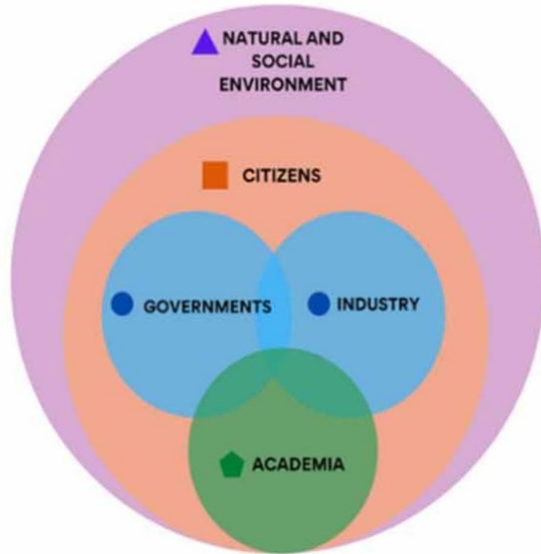
Short-term rewards
Triggers
Other **short-term
engagement
actions**

From months to years

**ACADEMIA / POLICY
MAKERS**

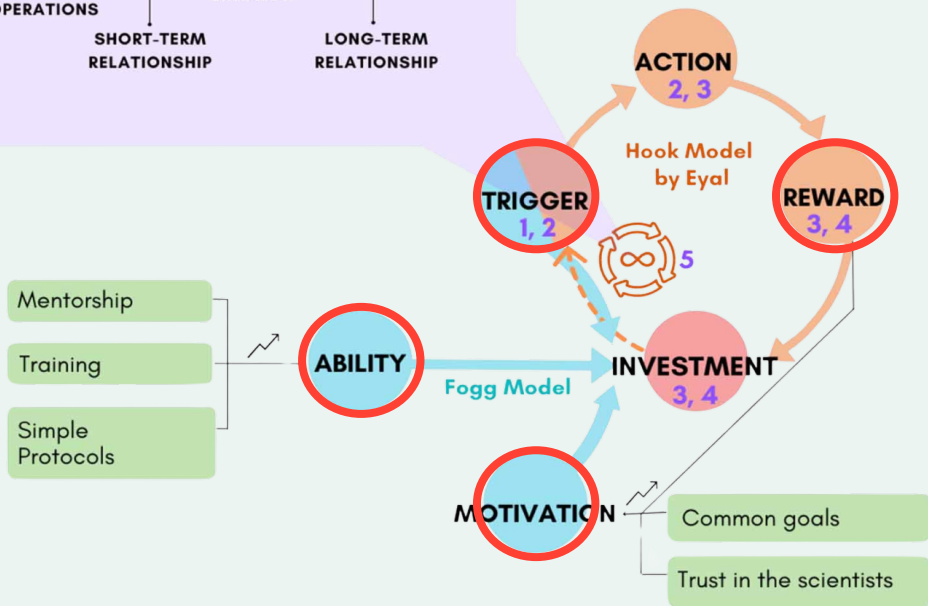
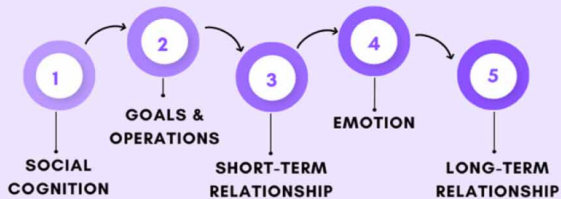
Scientific outputs
Creation of evidence-
based policies resulting
from the work of volunteers

Implementing the Janus engagement framework

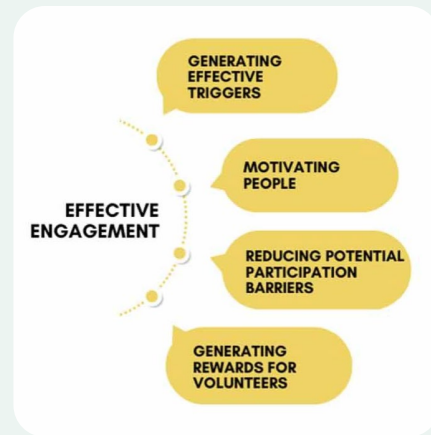


- **Quintuple Innovation Helix**
- Academia, government and industry working together

Evolutionary path model of social experience (Yamakami)



Janus engagement framework





Facilitating Community



Participatory Community

BIOMARATÓ



Mobilizing community



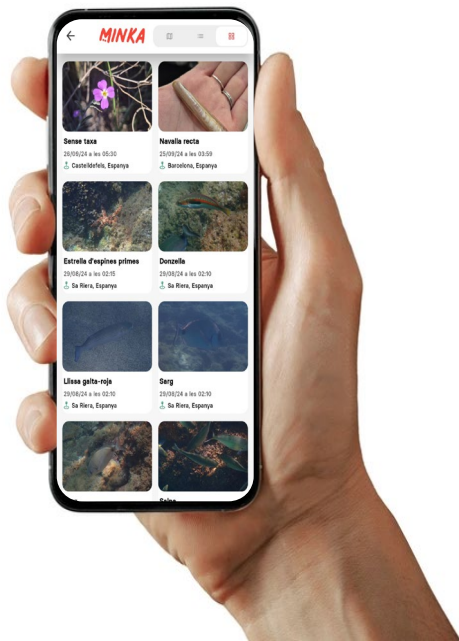
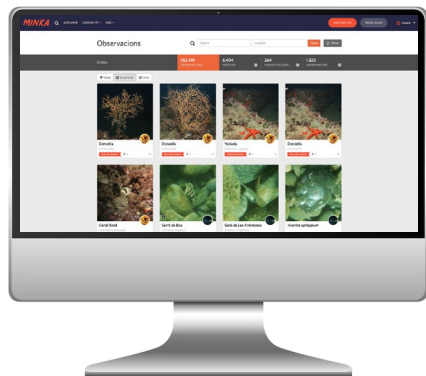
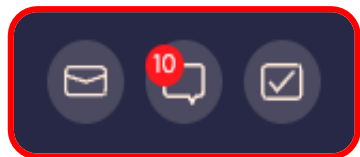
Academic community

Successful strategies for engaging citizens

1 Triggers

Notifications

- Academic community -



Targeted messages

- Mobilising community -

- Newsletters
- Social Media
- Organisation of guided activities

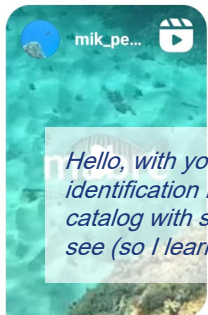


2 Motivation

Rewards

- Academic & Mobilising community -

- Quick identification of the observations
- Awards (BioMARathon)



Hello, with your help with identification I am making a mini catalog with short videos of what I see (so I learn a little). Thank you.

Hola, amb la vostra ajuda per l'identificació m'estic fent un mini catàleg amb vídeos curts del que veig (així aprenc una mica). Gràcies.

Bottom -up approach

- Academic community -

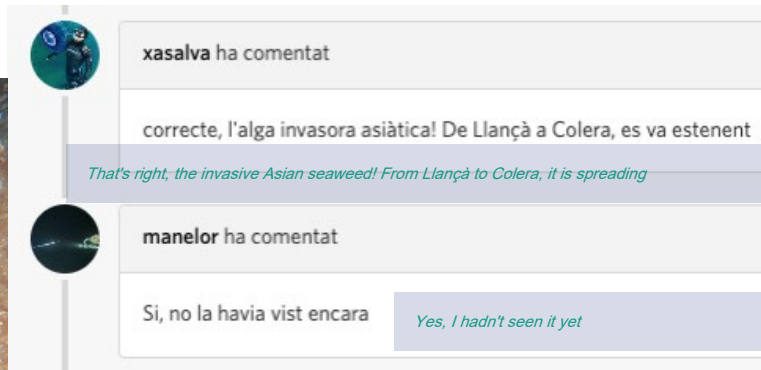
- People can upload observations from any living organisms wherever they want along the Catalan coast.



Learning

- Academic & Mobilising community -

- Identification sessions
- Interactive community (comments, suggestions)



Successful strategies for engaging citizens

2 Motivation

Communication of results

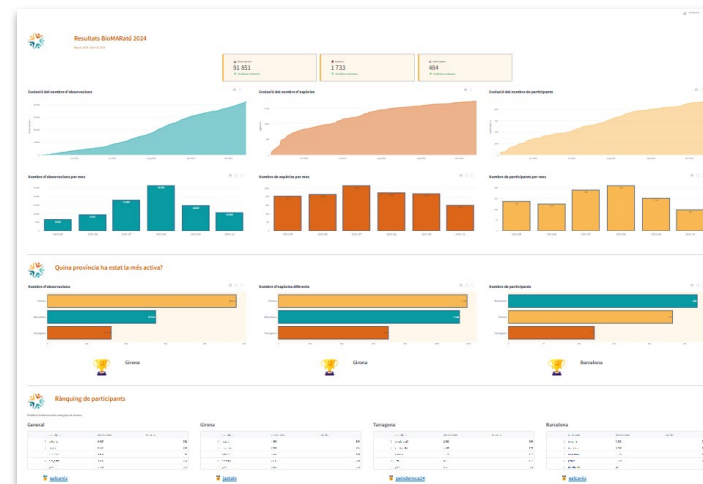
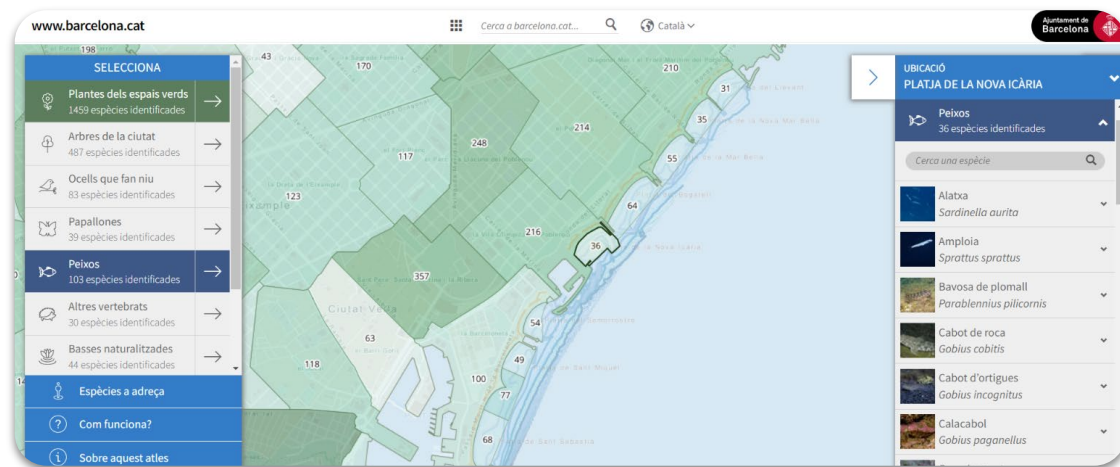
- Academic community -



2 Motivation

Use of the data by the administration

- Academic & Facilitating community -



- Visual data dashboards for decision-making

- Incorporate **marine layers** in the Biodiversity Atlas of the Barcelona City council



Successful strategies for engaging citizens

3 Reduce barriers to participation

Training prior to the guided activities

- Mobilising & Facilitating community -



Provide material

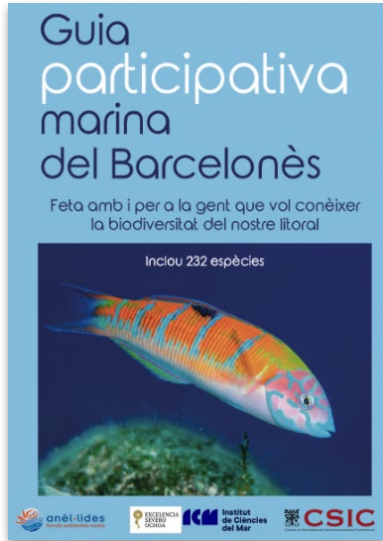
- Mobilising community -



4 Acknowledgment

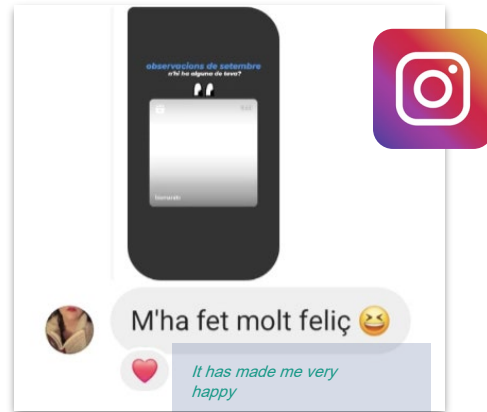
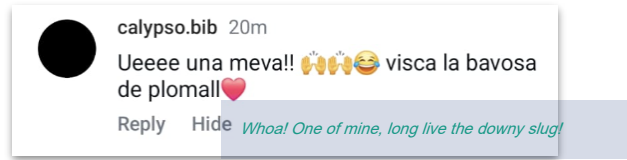
Acknowledgement at publications

- Academic & Mobilising community -



Mentions on social media

- Academic & Mobilising community -



Rankings

Face-to-face events

- Academic & Mobilising & Facilitating community -



New project

BioPlatgesMet

A paradigm shift in the management of public spaces

Citizens as "proactive consumers" of metropolitan parks and beaches

The AMB will use the data obtained through citizen participation in BioPlatgesMet to manage metropolitan parks and beaches comprehensively.



Maximizing Impact Through Stakeholder Integration

Collaborating with diverse stakeholders transforms citizen science into real-world environmental and social impact.

- **Government:** Puts citizen science data into action, improving how we manage local environments and urban areas.
- **SMEs and NGOs** Help reach more people, boosting participation and driving social and environmental change.
- **Citizens:** Bring local knowledge and passion, making the project stronger and building community ownership.
- **Academia:** Ensures the data is accurate and useful, providing a solid base for real-world results.



Thanks!



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**ENVIRONMENTAL RESEARCH
LETTERS**

LETTER • OPEN ACCESS

A new theoretical engagement framework for citizen science projects: using a multi-temporal approach to address long-term public engagement challenges

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Published 6 October 2022 • © 2022 The Author(s). Published by IOP Publishing Ltd

[Environmental Research Letters, Volume 17, Number 10](#)

[Focus on Public Participation in Environmental Research](#)

Citation Sonia Liñán *et al* 2022 *Environ. Res. Lett.* 17 105006



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<https://doi.org/10.1088/1748-9326/ac939d>